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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,997	01/16/2004	Mark T. Marshall	P-20093.00	8682
27581	7590	05/03/2005	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604			GREENE, DANA D	
			ART UNIT	PAPER NUMBER
			3762	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,997

Applicant(s)

MARSHALL ET AL.

Examiner

Dana D. Greene

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1-16-04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 - 7, 15-17, 19, 20, 22, 30-32, and 34 stand rejected under 35 U.S.C. §102(b) as being anticipated by Miesel et al. (US 6,144,866, hereinafter "Miesel").

Miesel is considered to disclose:

a medical electrical lead, comprising a lead body including a proximal end (see col. 12, ln. 58-59, Miesel). The disclosed lead is considered to anticipate the claimed medical lead because both are capable of being connected to a surface of a patient's heart and can be configured to have routed from the proximal portion;

a sensor capsule coupled to the lead body (see abstract, Miesel). The disclosed sensor is considered to anticipate the claimed sensor capsule because both configurations allow for the management of cardiac conditions and the sensing of electrical activity of the heart while including sensors from a selection of physiological sensors such as oxygen sensors;

a sensor bus coupled to the sensor capsule and extending through the lead body to the lead body proximal end (see col. 17, ln. 10-15, Miesel). The disclosed configuration is considered to anticipate the claimed sensor bus coupling because both

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allow for connection to a single lead thereby reducing power consumption and increasing device reliability;

an elongate coil conductor, an elongate cable conductor extending within the coil conductor (see col. 17, ln. 15-30 and col. 20, ln 38-50, Miesel). The disclosed conductors are considered to anticipate the claimed coil and cable conductor because both configurations support proper electrical isolation and performance of each element over the implant life of the lead;

an electrically insulative layer, positioned between the cable conductor and the coil conductor, having a relative dielectric coefficient less than approximately 10 (see col. 24, ln. 50-62, Miesel). The disclosed dielectric characteristic is considered to anticipate the claimed dielectric coefficient because both cause substantial changes to the insulative layer, which can reduce the capacitance between the cable conductor and the coil conductor.

With reference to claim 20, Miesel is considered to disclose the claimed invention as previously discussed including:

a means to reduce a capacitance between the cable conductor and the coil conductor over an implanted life of the lead (see col. 24, ln. 40-60, Miesel). The disclosed shield circuit is considered to anticipate the claimed capacitance reduction means because both employ a dielectric material in the insulative gap.

Referring to claims 19 and 34, Miesel teaches a plurality of lumens (see col. 20, 17-21, Miesel). The disclosed lumen is considered to anticipate the claimed lumen

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because both work with the channels and housing to form a continuous channel surrounded by an inner surface.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 8-14, 21, and 23-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Miesel in view of Honeck et al. (US 6,501,991 B1, hereinafter "Honeck"). Miesel is considered to disclose the claimed invention as discussed above, under the anticipatory rejection, except for the claimed silicone insulative composition. However, Honeck discloses the claimed fluoropolymer, silicone, polyimide, and polyurethane compositions (see col. 3, ln. 65 – col. 4, ln. 5 and col. 5, ln. 45-65, Honeck). It would have been obvious to one of ordinary skill in the art to combine the teachings of Miesel with the considered composition makeup teaching found in Honeck for the purpose of keeping capacitance low and reducing drift in capacitance over time.

With reference to claims 13-14 and 28-29, Honeck discloses the MP35N alloy included in the coil conductor (see col. 5, ln. 45-50, Honeck). It would have been obvious to one of ordinary skill in the art to combine the teachings of Miesel with the considered MP35N alloy teaching of Honeck for the purpose of forming electrical conductors.

6. Claims 18 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Miesel in view of Halperin et al. (US 5,564,434, hereinafter "Halperin"). Miesel is considered to disclose the claimed invention as discussed above, under the anticipatory rejection, except for the claimed feedthrough pin. Halperin discloses the claimed feedthrough pin (see col. 8, ln. 27-34, Halperin). It would have been obvious to one of ordinary skill in the art to combine the teachings of Miesel with those of Halperin for the purpose of constructing the sensor capsule.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana D. Greene whose telephone number is (571) 272-7138. The examiner can normally be reached on M-F 9-6.

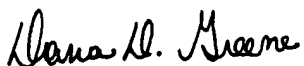
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-0276.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dana D. Greene



Primary Examiner